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ABSTRACT

Free speech samples and aural cloze test scores were collected from 24 Spanish-surnamed children at the beginning of first grade. The children were members of two classrooms, and each class received instruction from a Spanish-speaking bilingual teacher and an English-speaking monolingual teacher. The children were learning to read in Spanish and English. Spanish and English speech samples, which represented stories formulated by the children from picture books without words, were scored for grammaticality, verb tenses and sentence transformations. The scores were subsequently grouped into high, medium and low language control categories. Spanish and English cloze tests, administered in oral form, were scored for exact matching, appropriate synonyms and retention of appropriate syntax or meaning. A high relationship appeared to exist between the ability to perform predicting tasks, such as the cloze, and high control of language. When these language tasks were compared with teachers' estimates of reading success, a similar relationship existed; i.e., children with high or medium control of Spanish or English were more likely to be reading than children with low language control. Those children who showed adequate control in both languages were reading in both languages. Some children with high control in one language were learning to read in both languages. (Author/CFM)

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LANGUAGE DOMINANCE, PREDICTING ORAL LANGUAGE SEQUENCES AND BEGINNING READING ACQUISITION:

A study of first grade bilingual children

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Background

Twenty-four Spanish-surnamed children in two bilingual first grade classrooms were observed and interviewed for this present study. They are members of classrooms which have been paired, so that each child has contact with both a bilingual and a monolingual teacher. The distribution of each child's time with either teacher depends on his/her official classroom assignment, so that each group of children spend different, not equal, time with each teacher. Both classes, however, do receive some reading instruction in Spanish and in English. Parental consent was received for each child participating in the study. Since this is an ongoing research project, the children are being observed throughout the school year, and final data on their language development and reading acquisition will be collected in June at the end of first grade.

The present report will concern the language production of each child at the beginning of the school year and will describe the means by which we, as researchers, determined the child's language dominance, and his level of language complexity. The data are compared with the teachers' estimations (in March) of each child's relative success in learning how to read.

Procedure:

At the beginning of the school year we interviewed each child in two sessions, during which we elicited free speech samples, using picture books without words as the stimulation for oral language. Similar procedures have been used by Bloom (1970), Chomsky (1970), Braine (1963), and others, to elicit self-generated speech samples from children. We also administered four brief cloze tests (Wilson, 1953), which were based on similar picture books. Bilingual interviewers conducted one session exclusively in Spanish, the other in English. The language used in the first interview was randomly assigned to each interviewer and child, so that no preference was given to either language.

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The cloze tests were designed to test children's ability to receive oral sequences based on a story and to fill in deletions which have been systematically imposed on the orally presented passages. These deletions occur in two forms: one, by deleting every fifth word, as in the standard cloze procedure (Bormuth, 1975), and the other by omitting nouns having direct contextual bearing on the story. In all cases the tests were accompanied by a picture book so that the children always had a context in which to relate.

Cloze tests are devices which tap the child's ability to predict, based on his knowledge of the syntax and semantics of the sentences used. Since the tests we used at the beginning of the school year were in oral form and the subjects were unable to read ahead (we assumed that they were not reading) to gain further information for their predictions (as in the usual written cloze) we imposed certain restrictions on our deletions. These included first words in sentences and address nouns.

All interview sessions were started with conversation and with a warm-up story, and the predicting game was carefully explained to each child.

Open speech samples were derived from storytelling, the children using picture books to formulate their own stories. These were recorded on tape and transcribed by each interviewer.

Scoring

Cloze Tests:

Aural cloze tests were scored for exact matching and for appropriate synonyms. For the tests in which only nouns were deleted, children received a score of 3 for exact match; 2 for appropriate synonyms, and 1 for retaining meaning. For tests which deleted every fifth word (linguistically random), children received a score of 3 for exact match, 1 for correct syntax, and/or 1 for correct meaning.

Scoring Examples of cloze test items *

1.	Mama tiene el bebe y Papa tiene la BOTELLA	3
	(manos)	
2.	Tomás extiendo sus BEBE y Mama le da el (bebe) NINO.	0 2
	(string)	
3.	The kittens follow the ROPE and he puts them IN the box	2 3
	(fence)	
4.	The dog jumped over the WOODEN THING (child forgot word for fence but attempted to maintain meaning).	1

* inter-scorer reliability ran from .90 to 1.00

Children's scores varied widely on the cloze tests, ranging from 70% to zero for total sum scores and from 100% to zero on individual tests. The highest scores were obtained on the tests which deleted only nouns. Spanish scores tended to be somewhat lower than the English scores, but this may have been a function of where the deletions fell in the text. In both languages, however, the range of scores was the same.

Open Speech Samples

Transcribed speech samples were evaluated for quantity of speech and for complexity of language used. Each sentence was analyzed for its grammaticality, its use of verb tenses, and its use of sentence transformations. Each sentence that was judged grammatical received a score of 1, ungrammatical sentences received a zero score. For verbs, except those in the present tense (past, future, present progressive, etc.) a score of 1 was given. Every sentence other than a simple declarative statement (questions, do-support, imperatives, compound subjects or verbs, complex sentences, passives) received a score of 1 for each transformation. Children's use of dialogue was also given a score of 1.

A ratio score was devised, based on the number of sentences the child generated and the level of complexity he/she achieved in the use of grammaticality, verb tenses, and sentence transformations. Examples of the scored sentences follow.

Examples of scored sentences follow:

1) Estan comprando libros.

Score of 1 - grammatical
1 - present progressive
0 - sentence transformation

2) Estan caminando y los ninos estan sentados.

Score of 1 - grammatical
2 - present progressive
1 - compound sentence

3) He went over there and sit with them.

Score of 0 - ungrammatical
1 - past tense
1 - compound sentence

Children received ratio scores varying from such diverse possibilities as:

$\frac{28}{14}$; $\frac{6}{7}$; $\frac{16}{16}$; $\frac{33}{15}$; $\frac{9}{6}$ etc.

Analysis of the Data

For the purposes of evaluating children's oral language control in relation to their success in acquiring reading in first grade, we asked each teacher to rate the children according to their perception of the child's success in beginning reading. Although the teachers' perceptions of reading success may stem from a different definition of reading than that which the investigators hold, we felt it essential to measure the child's relative standing in terms of teachers' expectations. In both the English and Spanish instructional settings children are being taught to read in a phonics-based reading approach, and we are aware that the teachers' estimates of success might be a function of the child's ability to "sound out" letters. The investigators' definition of reading includes syntactical and semantic knowledge as well as phonological, and our judgments would perhaps differ. At the end of the school year, children will be assessed on their acquisition of reading from this viewpoint. At present we will report on the relationship of children's language control, their ability to predict oral sequences and the teachers' estimations of their reading.

Children's oral language samples were categorized for Spanish and English, as high, medium, and low. Children who possessed at least two of the three criteria for language complexity, i.e., grammaticality, verb tenses, and sentence transformations, were categorized as high; children who could use at least one of the three were categorized as medium, and children who possessed none with any consistency were categorized as low. Each child received a category designation for his oral language control in Spanish and in English.

Similarly, children were categorized in three categories of high, medium, and low for their total score on the cloze tasks. The following describes some of the relationships we have found among the categories and the children's rating in reading.

Relationship of High, Medium and Low Control of Language to Estimated Reading Success and Cloze Scores

Language Control	ENGLISH Estimated Reading % of children in Column I rated as reading	Cloze Test % of children in Column I in high, medium & low cloze categories
High	11 (.46)	10 (.91)	9 (.82)
Medium	7 (.29)	4 (.57)	7 (1.00)
Low	6 (.25)	1 (.17)	3 (.50)
	SPANISH	
High	13 (.54)	11 (.85)	9 (.70)
Medium	5 (.21)	4 (.80)	5 (1.00)
Low	6 (.25)	3 (.50)	3 (.50)

Reading Success in English and Spanish of Bilingual Speakers

Language Control in both languages	% of children in Column I reading English	% of children in Column I reading Spanis
High	8 (.33)	7 (.88)	7 (.88)
Medium	6 (.25)	4 (.66)	4 (.66)
Low*			

* Children who were categorized as low in both English and Spanish were not designated as bilingual speakers

Preliminary Findings

A strong relationship appears to exist between language control, reading success and the ability to complete aural cloze tests. By examining the distribution of children in terms of their control of English and Spanish we can analyze their performance in language with their performance on language-related tasks. In our sample, 46% of the children were considered to have high control of English (relative to the sample tested), 29% were categorized as medium, and 25% in low control of English. In Spanish, 54% of the children had high control, 21% had medium and 25% had low control.

Relationship of language control and reading. Examination of the children's standing in terms of the teachers' estimates of their reading ability and their language control suggests a close relationship. Of the eleven children in high control of English, ten of them or 91% are reading; of the seven children in medium control in English, four of them or 57% are reading; and of the six children in low control in English, only one child is reading. In Spanish a similar pattern exists, with 85% of the thirteen children in high control in Spanish reading, 80% of the children in medium control reading and only 50% of the children in low control reading. The inflated results in reading in Spanish as compared to English can be explained in a number of ways, although it appears that the bilingual teacher's estimate of the children's reading, in general, tended to be higher than the monolingual teacher's judgement (an interesting observation which will not be expanded at this time!).

Relationship of language control and cloze tests. Cloze test scores and language control are also highly related, with 82% of the children with high control in English and 70% of the children in high control of Spanish scoring in the high category for cloze tasks; in both languages 100% of the children in medium language control scored medium on the cloze tasks and 50% of the children in the low category scored low on the cloze tasks. The high

categorized children who did not score high on the cloze tests scored medium. Findings are not as clear for the children in the low categories, since some placed in medium and some in high categories on the cloze tests.

Bilingual speakers. Children who have adequate language in both Spanish and English were designated as bilingual. The majority of these children are learning to read in both languages.

Implications

It appears from these preliminarey data that contol of language in Spanish and English, to the extent that children produce grammatical sentences and/or use more complex language structures is closely related to their success in language tasks, such as predicting oral sequences, and their acquisition of reading in first grade. In practically all cases where children scored high in both languages, the teachers considered them successful in first grade reading. Children who scored in the medium range are also generally successful in reading. If a child scored low in language he is less likely to be reading. Some children who are high in at least one language are learning to read in both languages, at least as reading is defined in a phonics-based approach. Most bilingual children (with control in both languages) are learning to read in both languages.

There is some suggestion from the data that highly complex language development is not needed in order for children to benefit from reading instruction and/or learn to read, but that some minimal competence must be present. More detailed analysis of the language structures which children use might help us reveal that minimal base. Additionally, an analysis of the children's development in language over the entire first grade will increase our insights about their control of language in Spanish and in English and its effects upon the reading process.

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